

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

FLATWORLD INTERACTIVES LLC,  
Plaintiff,  
v.  
APPLE INC.,  
Defendant.

Case No. [12-cv-01956-WHO](#)

**CLAIM CONSTRUCTION ORDER**

**INTRODUCTION**

FlatWorld Interactives LLC (“FlatWorld”) brings this patent infringement suit against Apple Inc. (“Apple”), alleging that Apple infringed one of its patents, United States Patent No. RE43,318E (“the ‘318 Patent”). The ‘318 Patent is a reissue of United States Patent No. 6,920,619. Br. (Dkt. No. 168) 4. FlatWorld claims that popular products produced by Apple—such as the iPhone, iPod, iPad, and other electronic devices—use technology covered by the ‘318 Patent. In particular, the patent allegedly relates to the touch-based, user-interface technology present in those devices.

On October 28, 2013, the Court held a claim construction hearing on the construction of disputed terms. Based on the parties’ briefs and other papers filed in the claim construction proceeding, and the argument of counsel, the Court construes the disputed terms as below.

**LEGAL STANDARD**

Claim construction is a matter of law. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Terms contained in claims are “generally given their ordinary and customary meaning.” *Vitronics*, 90 F.3d at 1582. In determining the proper construction of a claim, a court begins with the

1 intrinsic evidence of record, consisting of the claim language, the patent specification, and, if in  
 2 evidence, the prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005);  
 3 *see also Vitronics*, 90 F.3d at 1582. “A claim term used in multiple claims should be construed  
 4 consistently . . . .” *Inverness Med. Switzerland GmbH v. Princeton Biomeditech Corp.*, 309 F.3d  
 5 1365, 1371 (Fed. Cir. 2002).

6 “The appropriate starting point [ ] is always with the language of the asserted claim itself.”  
 7 *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998). “[T]he ordinary  
 8 and customary meaning of a claim term is the meaning that the term would have to a person of  
 9 ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date  
 10 of the patent application.” *Phillips*, 415 F.3d at 1312. “There are only two exceptions to this  
 11 general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when  
 12 the patentee disavows the full scope of a claim term either in the specification or during  
 13 prosecution.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).  
 14 “The patentee’s lexicography must, of course, appear with reasonable clarity, deliberateness, and  
 15 precision before it can affect the claim.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d  
 16 1243, 1249 (Fed. Cir. 1998) (quotation marks omitted). “In some cases, the ordinary meaning of  
 17 claim language as understood by a person of skill in the art may be readily apparent even to lay  
 18 judges, and claim construction in such cases involves little more than the application of the widely  
 19 accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1314.

20 “Importantly, the person of ordinary skill in the art is deemed to read the claim term not  
 21 only in the context of the particular claim in which the disputed term appears, but in the context of  
 22 the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313. “Claims speak to those  
 23 skilled in the art,” but “[w]hen the meaning of words in a claim is in dispute, the specification and  
 24 prosecution history can provide relevant information about the scope and meaning of the claim.”  
 25 *Electro Med. Sys., S.A. v. Cooper Life Scis., Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994) (citations  
 26 omitted). “[T]he specification is always highly relevant to the claim construction analysis.  
 27 Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Vitronics*,  
 28 90 F.3d at 1582. “However, claims are not to be interpreted by adding limitations appearing only

1 in the specification.” *Id.* “Thus, although the specifications may well indicate that certain  
2 embodiments are preferred, particular embodiments appearing in a specification will not be read  
3 into the claims when the claim language is broader than such embodiments.” *Id.* “[T]he  
4 description may act as a sort of dictionary, which explains the invention and may define terms  
5 used in the claims,” and the “patentee is free to be his own lexicographer,” but “any special  
6 definition given to a word must be clearly defined in the specification.” *Markman*, 517 U.S. at  
7 989-90.

8 On the other hand, it is a fundamental rule that “claims must be construed so as to be  
9 consistent with the specification.” *Phillips*, 415 F.3d at 1316. “The construction that stays true to  
10 the claim language and most naturally aligns with the patent’s description of the invention will be,  
11 in the end, the correct construction.” *Renishaw*, 158 F.3d at 1250.

12 Finally, the Court may consider the prosecution history of the patent, if in evidence.  
13 *Markman*, 52 F.3d at 980. The prosecution history may “inform the meaning of the claim  
14 language by demonstrating how the inventor understood the invention and whether the inventor  
15 limited the invention in the course of prosecution, making the claim scope narrower than it would  
16 otherwise be.” *Phillips*, 415 F.3d at 1317 (citing *Vitronics*, 90 F.3d at 1582-83); *see also Chimie*  
17 *v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) (“The purpose of consulting the  
18 prosecution history in construing a claim is to exclude any interpretation that was disclaimed  
19 during prosecution.”) (internal quotations omitted).

20 In most situations, analysis of this intrinsic evidence alone will resolve claim construction  
21 disputes. *Vitronics*, 90 F.3d at 1583. However, “it is entirely appropriate . . . for a court to consult  
22 trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent  
23 file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in  
24 the pertinent technical field.” *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1309  
25 (Fed. Cir. 1999). Extrinsic evidence “consists of all evidence external to the patent and  
26 prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.”  
27 *Markman*, 52 F.3d at 980. All extrinsic evidence should be evaluated in light of the intrinsic  
28 evidence, *Phillips*, 415 F.3d at 1319, and courts should not rely on extrinsic evidence in claim

construction to contradict the meaning of claims discernible from examination of the claims, the written description, and the prosecution history, *Pitney Bowes*, 182 F.3d at 1308 (citing *Vitronics*, 90 F.3d at 1583). While extrinsic evidence may guide the meaning of a claim term, such evidence is less reliable than intrinsic evidence. *Phillips*, 415 F.3d at 1318-19.

## DISCUSSION

### I. Term 1: “image”

This language is found in Claims 1, 2, 5, 6, 7, 8, 15, 18, 19, and 20.

FlatWorld’s Construction	Apple’s Construction
A displayed or drawn representation on the screen, capable of being manipulated as a unit by dragging or removal.	The object that is manipulated in response to touch or location inputs.

At the claim construction hearing, Apple stated that it does not oppose replacing “object” with a “displayed or drawn representation”—language from FlatWorld’s construction. Dkt. No. 246 (“Tr.”) 16:22-24; 18:12-14. The Court adopts Apple’s construction, as modified. Accordingly, the Court construes “image” as follows: “a displayed or drawn representation that is manipulated in response to touch or location inputs.”

The Court agrees with Apple that the displayed or drawn representation is one “that is manipulated in response to touch or location inputs.” This construction is consistent with the plain language of the claims. As Claim 1 states, the invention is “[a] system for manipulating images comprising a screen upon which an image is displayed; and a computer coupled to the screen . . . causing the images to be *manipulated in response to location inputs* from a pointing device.” ‘318 Patent 15:1-6 (emphasis added). The remaining relevant claims (except for Claim 2) then specifically discuss a system in which the pointing device is a touch panel. Thus, an “image” is properly understood as a representation “that is manipulated in response to touch *or* location inputs.”

Contrary to FlatWorld’s construction, the plain language of the claims do not support including the modifier “as a unit.” As FlatWorld concedes, that phrase appears nowhere in the patent. Tr. 20:15-17. Instead, FlatWorld supports including “as a unit” based on the preferred embodiment. FlatWorld argues that the preferred embodiment’s source code indicates that an

image is moved on and removed from the screen as a unit when the system detects a velocity exceeding a threshold. Br. 9. Because the code refers to “the target” that is moved around, the “target” must be a single unit. Br. 10. FlatWorld states, “In the preferred embodiment, the image cannot be partially removed from the screen . . . the [ ]image must be dragged and thrown *as a unit*.” Br. 10 (original emphasis). Relying on the preferred embodiment to limit the claims, however, violates the well-established prohibition against doing so. *Vitronics*, 90 F.3d at 1582 (“[A]lthough the specifications may well indicate that certain embodiments are preferred, particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments.”). For that reason, FlatWorld’s construction is incorrect.<sup>1</sup>

FlatWorld also argues that the manipulations are limited to “dragging and removal” based on the claims. As discussed above, however, Claim 1 discloses that the images are “manipulated in response to location inputs.” Claim 1 continues on to disclose that the images may be dragged and removed, but that does not mean that the “manipulat[ions] in response to location inputs” must be limited to dragging and removal because the reference to dragging and removal appears to be confined to a particular kind of manipulation in response to location inputs. ‘318 Patent 15:8-11. FlatWorld’s construction improperly imposes a narrower limitation onto a broader claim.

## **II. Term 2: “threshold velocity”**

### **Term 3: “velocity . . . threshold”<sup>2</sup>**

“Threshold velocity” is found in Claims 1, 2, 5, 6, 8, 18, and 19. “Velocity . . . threshold” is found in Claims 15 and 20.

<b>FlatWorld’s Constructions</b>	<b>Apple’s Constructions</b>
<b>Velocity:</b> The speed of at least one directional component of motion.	<b>Velocity:</b> Velocity or, in the alternative, speed.
<b>Threshold velocity:</b> A velocity that, if exceeded, is a necessary condition to change	<b>Threshold velocity:</b> A level or value of velocity sufficient to cause the dragged/moved

<sup>1</sup> The Court does not think that a juror would be confused about whether or not a representation is manipulated “as a whole,” as FlatWorld’s concern seems to be. *See, e.g.*, Tr. 20:18-20.

<sup>2</sup> The parties agree that these are two separate terms, but are grouping them together for convenience.

the semantics of a dragging gesture.

image to be removed from the display.

The Court adopts Apple's constructions for "velocity" and "threshold velocity."

#### A. "velocity"

The Court adopts Apple's construction because the plain and ordinary meaning of the word "velocity" would be apparent to a person of ordinary skill in the art, and Apple's construction would not confuse members of the jury. The construction is supported by the patent's language because the patent uses the words "velocity" and "speed" interchangeably, and Apple's addition of "or, in the alternative, speed" does no violence to the term. *See, e.g.*, '318 Patent at Abstract, 2:30, 6:58, 14:41. Indeed, FlatWorld's construction references "speed" as well.

FlatWorld's construction states that velocity must have "at least one directional component of motion." While Apple conceded at the claim construction hearing that velocity has a directional element, it correctly noted that the claims are silent about "components" of directions. Tr. 30:7-15. To the extent that motion can be broken down into components, as FlatWorld argues the patent does, Apple also correctly notes that "the claimed threshold is applied to the velocity as a whole, rather than to just ['at least one directional'] component of it." Response (Dkt. No. 184) 11.

FlatWorld argues that the source code in the preferred embodiment as shown in Figures 12, 13, and 15 "indicates separate consideration of thresholds regarding the speed of horizontal and vertical components of motion." Br. 12. It points out that the "throw" algorithms contain directional components, e.g., "Left" and "Down." FlatWorld asserts that while Apple cites to '318 Patent 12:18-20 to show that velocity supposedly only references the absolute position change in position over time, the next sentence discusses "directional component[s]" in the cardinal directions. Reply (Dkt. No. 189) 7.

Assuming FlatWorld's description of the preferred embodiment is correct, FlatWorld's argument remains unpersuasive. FlatWorld again seeks to import a limitation from the preferred embodiment into the claims, which the Federal Circuit has prohibited. *Vitronics*, 90 F.3d at 1582. FlatWorld's reliance on the disclosed figures in this regard is unwarranted, and FlatWorld's brief cites to no other intrinsic evidence to support its argument.

FlatWorld says that it takes the definition of “velocity” from Apple’s operating system’s dictionary, which defines velocity as “the speed of something in a given direction,” and argues that because nothing in the patent or its file history limits directions or components, “FlatWorld has construed this term to take this into account.” Br. 12 (quoting Meyer Br. Decl. Ex. 9). The Court concludes that there is no need to rely on extrinsic evidence here.

**B. “threshold velocity”**

The parties disagree whether exceeding the threshold velocity is a necessary, as opposed to a sufficient, condition for “throwing” or removal to occur. The Court adopts Apple’s construction and finds that exceeding the threshold velocity is sufficient to cause an image to be removed. There is no indication in the claims that anything additional is necessary for an image to be removed—indeed, the term “threshold” strongly suggests that it constitutes a *sufficient* condition, if not demands such an understanding. More importantly, as Claim 1 states, “when the image is being dragged . . . and the system detects that the velocity . . . exceeds a threshold velocity, the system responds by removing the image.” ‘318 Patent 15:8-11. The claims do not disclose any other requirement for the system to “respond by removing the image” other than for the velocity to exceed the velocity threshold. FlatWorld’s counsel concedes as much. Tr. 25:25-26:1.

Similarly, the specification does not contain any indication that exceeding the threshold velocity is insufficient to remove an image. For example, the Abstract states that one possible manipulation of the system is “removing an image from the screen by ‘throwing’ it, i.e., moving it above a threshold speed.” ‘318 Patent at Abstract. The “i.e.” shows that the inventor equates exceeding the speed (or velocity) threshold with removal. Thus, exceeding the velocity threshold is sufficient for removal. Similarly, the Summary of the Invention states, “If the image is dragged at a speed above a threshold velocity, the image *is* ‘thrown away from’ the display . . . .” ‘318 Patent 2:29-31 (emphasis added). In addition, the preferred embodiment states, “In this embodiment, the velocity threshold is a distance of 2 . . . . If the distance between the variables is greater than that, a throw has occurred.” ‘318 Patent at 12:16-20. The language in the two preceding excerpts forms an if-then relationship, which is a sufficient condition. Finally, the Conclusion of the specification states that the system allows for “moving [an] object at a speed



1 faster than a threshold velocity *to* get rid of it”—there is no evidence that any condition other than  
 2 moving faster than the threshold velocity is required. ‘318 Patent 14:41-42 (emphasis added).

3 FlatWorld argues that “[t]he claims are all open-ended ‘comprising’ claims,” so the recited  
 4 elements, such as exceeding a threshold velocity, “do not exclude embodiments having additional  
 5 elements.” Br. 16 (citing *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed.  
 6 Cir. 2008); *Gillette Co. v. Energizer Holdings, Inc.*, 405 F.3d 1367, 1371-72 (Fed. Cir. 2005);  
 7 *Crystal Semiconductor Corp. v. TriTech Microelectronics Int’l, Inc.*, 246 F.3d 1336, 1347 (Fed.  
 8 Cir. 2001)). “Thus, the claims’ recital of a threshold velocity for removing an image cannot be  
 9 read to exclude other factors from the algorithm for image removal.” Br. 16. It cites *Gillette Co. v.*  
 10 *Energizer Holdings, Inc.*, 405 F.3d 1367, 1371-72 (Fed. Cir. 2005), as stating, “The word  
 11 ‘comprising’ transitioning from the preamble to the body signals that the entire claim is  
 12 presumptively open-ended.” Br. 12. It also cites *Crystal Semiconductor Corp. v. TriTech*  
 13 *Microelectronics Int’l, Inc.*, 246 F.3d 1336, 1347 (Fed. Cir. 2001), as supporting the same  
 14 proposition and stating that “[t]he transition ‘comprising’ creates a presumption that the recited  
 15 elements are only a part of the device, that the claim does not exclude additional, unrecited  
 16 elements.” Reply 5 (citing *Crystal Semiconductor*, 246 F.3d at 1347). Accordingly, FlatWorld  
 17 claims that the threshold velocity is a “necessary condition,” but not a sufficient one (though it  
 18 could be), for throwing or removing an image from the screen. Br. 12.

19 While FlatWorld correctly states what these cases hold, the principle they establish does  
 20 not support FlatWorld’s argument. As FlatWorld points out, the term “‘comprising’ creates a  
 21 presumption that the recited elements are only a part of the device, that the claim does not exclude  
 22 additional, unrecited elements.” *Crystal Semiconductor*, 246 F.3d at 1347. However, Apple’s  
 23 construction merely says that exceeding the threshold velocity is itself sufficient for an image to  
 24 be removed—it does not say that the device may not contain other “unrecited elements.” While  
 25 other elements may later be added, that does not mean that what the patent already discloses  
 26 cannot or should not perform the function it contemplates.

27 FlatWorld’s argument makes an unwarranted leap of logic from the proposition that the  
 28 recited elements are not exclusive to the conclusion that they are insufficient for some previously



disclosed result to take place. As the Federal Circuit stated, “The presumption raised by the term ‘comprising’ does not reach into [the] steps to render every word and phrase therein open-ended . . .” *Dippin’ Dots, Inc. v. Mosey*, 476 F.3d 1337, 1343 (Fed. Cir. 2007). *Genentech, Inc. v. Chiron Corp.*—a case FlatWorld cites in support of its argument—states, “‘Comprising’ is a term of art used in claim language which means that the named elements are *essential*,” 112 F.3d. 496, 501 (Fed. Cir. 1997) (emphasis added), but FlatWorld has cited no case to suggest that named elements cannot be construed to be *sufficient*.

FlatWorld argues that the prosecution history supports its construction. It quotes the prosecution history as stating, “The ‘throwing’ operation . . . is a modification of the dragging operation . . . that takes the speed *as well as the direction of the dragging into account*. The particular semantic of the operation is that when the speed is above a threshold velocity, the image being dragged is removed from the display.” Br. 13 (quoting Meyer Br. Decl. Ex. 8 at FWAPP1023 (FlatWorld’s emphasis)). While dragging images on a screen was known at the time of the invention, the patent introduces “a threshold velocity, above which the semantic of the operation changes from a drag to a ‘throw,’ and removes the image from the display.” Br. 13. For these reasons, FlatWorld argues, threshold velocity is a necessary, but not sufficient, condition for throwing. Br. 13.

FlatWorld’s conclusion does not follow from the prosecution evidence it cites. All that the prosecution history reveals is that the inventor allegedly introduced the concept of a threshold velocity; there is nothing to suggest that there was more that the inventor thought was needed for an image to be removed. Indeed, as the passage quoted by FlatWorld states, “The particular semantic of the operation is that when the speed is above a threshold velocity, the image being dragged *is* removed from the display.” Meyer Br. Decl. Ex. 8 at FWAPP1023 (emphasis added). Specifically, when the threshold velocity is exceeded, the image *is* dragged—not “may be dragged” or “can be dragged.” Had those other phrases been used instead, then FlatWorld might be right, but the prosecution history does not say that.<sup>3</sup>

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<sup>3</sup> In rebutting FlatWorld’s reliance on *Accent Packaging, Inc. v. Leggett & Platt, Inc.*, 707 F.3d 1318 (Fed. Cir. 2013), to support its argument based on prosecution history, Apple misleadingly

FlatWorld argues that “Apple’s construction would improperly exclude the preferred embodiment.” Br. 14. FlatWorld argues that the preferred embodiment’s code discloses that the preferred embodiment “must first detect that the user’s touch has ended, then [it] process[es] *both* velocity and direction before an image can be removed from the screen, in language any non-programmer can understand.” Br. 14 (original emphasis). The dragging portion of the source code allegedly allows for an image to be dragged across the screen as long as the touch has not ended—it does not determine whether a throw has occurred until it detects that the user is no longer touching the screen. Br. 14-15. So long as the touch remains on the screen, an image will never be thrown no matter how fast it is dragged. Br. 15. “[C]onsequently, there is no instance in which exceeding the threshold velocity is sufficient to remove an image.” Br. 16 (original emphasis).

FlatWorld correctly says that any construction of the claims in a patent should not exclude a preferred embodiment. Br. 16. However, FlatWorld has not adequately explained why Apple’s construction would exclude the preferred embodiment. As discussed above, the preferred embodiment states that if a change in a stored position exceeds the velocity threshold, “a throw has occurred.” ‘318 Patent 12:9-20. The preferred embodiment’s description supports the conclusion that a velocity threshold is a sufficient condition for throwing to occur. Even if the code disclosed in the preferred embodiment is incompatible with this construction, the Court cannot impose a limitation from the preferred embodiment onto clear claim language.

Although the parties cite to extrinsic evidence, such as dictionaries and inventor testimony, because the Court finds the intrinsic evidence sufficient, it need not address the parties’ arguments based on extrinsic evidence.

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quotes from that case to attempt to undermine FlatWorld, stating, “Rather, the Federal Circuit in *Accent Packaging* specifically noted that the ‘prosecution history . . . impart[s] no special meaning to the phrases’ at issue.” Response 13-14 (quoting *Accent Packaging*, 707 F.3d at 1325 (original brackets and ellipses)). While *Accent Packaging* literally contains the words quoted by Apple, the Federal Circuit was merely repeating the arguments of one of the parties. Indeed, the court was repeating the arguments of the party *against which it ruled*, yet Apple quoted that statement as if it were a controlling principle of law.

**III. Term 4: “representative thereof” and “representative of the removed image”**

“Representative thereof” is found in Claims 1 and 7. “Representative of the removed image” is found in Claim 15.

FlatWorld’s Construction	Apple’s Construction
A depiction of at least a portion of the removed image.	A portrayal or symbol [thereof/of the removed image].

The Court adopts FlatWorld’s construction. Looking to the claim language, a person of ordinary skill in the art would understand that “representative,” read in context, refers to a portion of a particular image that is being removed rather than a “portrayal or symbol” of the removed image that may not bear any visual similarity to the removed image, which Apple’s counsel conceded its construction allows. Tr. 36:11-22. Claim 1 contemplates that “when the image is being dragged . . . [and] exceeds a threshold 10 velocity, the system responds by removing the image from the display without leaving any representative thereof in the display.” Claim 2 then states that “the removed image is automatically replaced by another image.” Claim 7’s language is similar to Claim 1. Claim 8 is identical to Claim 2 except that it references Claim 7. Claim 15 states that the system responds to a removed image “by replacing the image with a replacement image that is not a representative of the removed image.”

Because the main occurrence disclosed in the relevant claims is that the image is *removed*, the most natural understanding of the disputed terms is that no portion of the *removed* image remains—the removal occurs “without *leaving* any representative thereof.” As Apple’s counsel concedes, the patent’s language contains no support for including “a portrayal or symbol” in construing it. Tr. 34:5. Adopting Apple’s construction of “representative” does little to help understand the patent and appears to broaden the scope of the patent more than warranted. FlatWorld’s construction makes clear that a *removed* image means that the entire image is gone as opposed to having it partially visible on the screen.

Apple contends that the prosecution history supports its construction and specifically allows an image, “such as a line or dot,” to be a “representative.” Response 15. At oral argument, Apple’s counsel stated that “it’s pretty hard to see why you would limit the representation to a

literal representation.” Tr. 33:20-21. In particular, Apple cites to FlatWorld’s attempt to distinguish the ‘318 Patent from prior art—United States Patent 5,463,725 (“Henckel”)—involving an electronic reader displayed as an image of an open-faced book. When a page is “turned,” the page that was turned appears as a line corresponding to the page’s edge in a book. Apple rejects FlatWorld’s arguments that those lines are “literal” depictions of a full page. Response 18. Rather, it says they are symbolic. This, Apple argues, is supported by the deposition testimony of the ‘318 Patent’s inventor. Response 18 (citing Pieja Response Ex. J at 106:2-7).

The Court is persuaded that the claim language is itself sufficient to support FlatWorld’s construction.<sup>4</sup> Prosecution history “often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Phillips*, 415 F.3d at 1317. Here, the prosecution history is ambiguous, and the parties appear to recognize this. Tr. 36:3-4; 40:5-7; 41:10-12. The evidence cited by Apple does not clearly support its argument that a “representative” can be “any symbol that stands for” an image. Response 15 (emphasis added). The prosecution history emphasizes that the prior art’s displayed image is “similar to a printed book or magazine.” Pieja Response Decl. Ex. S at 7. In addition, the display on the electronic reader “emulates the behavior of a printed book.” *Id.* The prosecution history’s language suggests at the very least that a “representative” cannot merely be any “symbol” of the removed image. Rather, it must bear some connection with the removed image: this contradicts Apple’s assertions.

Apple argues that extrinsic evidence from dictionaries supports its construction. Response 16. Because the Court finds that FlatWorld’s construction is sufficiently supported by intrinsic evidence, there is no need to appeal to extrinsic evidence.

#### **IV. Term 5: “image is being dragged” and “image was dragged”**

“Image is being dragged” is found in Claim 1. “Image was dragged” is found in Claim 18.

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<sup>4</sup> As Apple’s counsel stated, “So the issue here really is just, what does the claim say?” Tr. 41:22-23.

FlatWorld's Construction	Apple's Construction
The image is or was caused to move with the touched point, or to track location inputs.	<p>The touched point is or was moved within a selected image, causing the image to move with the touched point.</p> <p>Alternatively: The touched or selected point is or was moved within a selected image, causing the image to move with the point.<sup>5</sup></p>

The Court construes these terms as follows: “the touched or selected point within the selected image is or was moved in response to location inputs, causing the image to move with the point.”

Claim 1 discloses a computer that “caus[es] the images to be manipulated in response to location inputs from a pointing device” and that “the image is being dragged in response to the location inputs.” ‘318 Patent 15:4-9. This language shows that the image’s dragging occurs “in response” to “location inputs,” suggesting a causal connection. Any construction must reflect the relationship between the dragging and the location inputs. Because the claims do not define “dragged,” it is appropriate to look to the specification to understand what the patent means by “dragged” because, as the Federal Circuit said, the specification “is the single best guide to the meaning of a disputed term.” *Vitronics*, 90 F.3d at 1582. Consistent with the Court’s construction, the Summary of the Invention states that “moving the touched point within a selected image causes the image to move with the touched point, thus permitting the image to be dragged.” ‘318 Patent 2:22-24.

While the Court’s construction is closer to Apple’s alternative construction, both parties’ constructions contain shortcomings. FlatWorld’s construction allows the image to be caused to either “move with the touched point” or “to track location inputs.” But that severs the causal connection by stating that the image “is or was caused to *move with*” either the touched point or to “track” location inputs, but does not make clear that the image is being dragged directly “*in response to* the location inputs,” as Claim 1 states. In addition, the Court finds that the term “track,” which is not used anywhere in the patent, is vague and may confuse a juror.

Apple concedes that its previous construction, which only referenced a “touched point,”

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<sup>5</sup> Apple proposed this alternative in its Responsive Brief to resolve concerns FlatWorld raised.

may be too narrow of a construction and proposed allowing for a “selected point” in addition to a “touched point.” Response 25. However, Apple’s construction fails to make clear that the dragging occurs “in response to the location inputs.” ‘318 Patent 15:8-9. The Court’s construction resolves the issues in both parties’ constructions.

FlatWorld argues that Apple’s construction should be rejected because “it impermissibly reads touch limitations from claims 5-7 and 15 into claims 1, 2 and 28.” Br. 20; *see also* Reply 14. Because Claims 1, 2, and 18 do not mention a touch screen, they should be understood to reference systems with a touch screen and systems having conventional displays, e.g., those that use a mouse as a pointing device. Br. 20-21. On the other hand, Claims 5, 6, 7, and 15 explicitly use touch panels and are therefore limited to them. Br. 21. “Thus, the dragging of an image term recited in claims 1, 2 and 18 cannot be construed to require a ‘touched point,’ as Apple urges.” Br. 21. In addition, FlatWorld argues that Apple is inappropriately using the written description of “dragged” at 2:20-24 to limit the terms. Reply 14-15.

Apple argues that its proposed modification should resolve any objections FlatWorld may have. Response 25. The Court agrees and adopts Apple’s alternate construction to make clear that the claims should not be limited to only a touch screen where the patent does not so intend. However, as discussed above, referencing the specification to construe the term “dragged” is appropriate since the specification helps to show what the patentee meant by using that word.

**V. Term 6: “a system for manipulating images”; “a system for manipulating a moveable image”; and “image to be manipulated in response to location inputs”**

“A system for manipulating images” is found in Claims 1, 2, 5, 6, and 18. “A system for manipulating a moveable image” is found in Claims 7, 8, and 19. “Image to be manipulated in response to location inputs” is found in Claims 1, 2, 5, 6, 7, 8, 18, and 19.

FlatWorld’s Construction	Apple’s Construction
Manipulating images includes any one or more of the following: selecting an image, dragging the selected image, dropping the image, moving a selected image, removing an image from the screen, or modifying the image.	A set of operations comprising at least selecting, moving, removing, and modifying.

The Court adopts Apple’s construction. The claims and specification reflect that the

invention must be able to do at least the four operations in Apple’s construction. Claim 1 discloses that it is “a system for manipulating images,” and that the images may be “dragged” and “remov[ed] . . . from the display.” As previously discussed, for an image to be dragged, it must be selected and moved. Similarly, Claim 7 discloses that “the image to be manipulated” is manipulated by touch, and touching “selects the image for moving.” Further, the image can be “removed” if it is moved above a threshold velocity.

While only Claims 11 and 12 discuss modification, the specification supports the conclusion that the invention must perform all four functions identified by Apple because nearly all mentions of “manipulations” in the specification detail all those functions. As the Federal Circuit noted, “claim terms are normally used consistently throughout the patent.” *Phillips*, 415 F.3d at 1314; *see also Vitronics*, 90 F.3d at 1582 (stating that the specification “is the single best guide to the meaning of a disputed term”). The Abstract of the patent states that it discloses “[a] digital system” for which “[a] child may manipulate [ ] images,” and the “[m]anipulations include selecting an image . . . moving a selected image . . . removing an image . . . and modifying the image.” The Summary of the Invention similarly states that the “system is based on manipulating an image,” and discloses that: “[i]f an image is movable, touching the . . . image selects the image for moving”; moving (or “dragging”) the image above a velocity threshold removes (or “throws”) the image; and “[i]f an image is tapped twice in short succession . . . the image is selected for modification.” ‘318 Patent 2:19-40. The Conclusion also provides that a “consequence” of the principles behind the patent “is a graphical user interface which permits [a] child to manipulate objects on the screen” by “touching an object to select it for moving . . . moving the object at a speed faster than a threshold velocity to get rid of it, and modifying the object by touching it twice and then moving the finger within the object to change its size.” ‘318 Patent 14:36-44. None of the examples speak of any particular operation in isolation, nor is there any evidence that the invention is sufficient if it only performs one operation.

FlatWorld argues that Apple unjustifiably “singles out” these four operations and that the manipulations recited in the patent are “non-exclusive.” Br. 22. However, FlatWorld provides no persuasive argument about why the manipulations listed should be non-exclusive or why a system



that only performs one form of manipulation is sufficient for the invention to be realized. FlatWorld is correct that the word “includes” may sometimes be followed by a non-exclusive list. But the terms here, read in context within the patent, do not support that understanding. For example, it makes no sense for the patent to cover a system that only allows for “selecting” an image and nothing more—such an understanding is contrary to the entire purpose of the patent and what it discloses. On the other hand, references to “manipulations” in the patent strongly indicate that the patentee intended the more comprehensive list of operations Apple proposes.

FlatWorld’s contorted attempt at parsing nouns and verbs in arguing that the mere fact that the patent discloses a system for “manipulating” images means that *one* method of “manipulation” is sufficient is belied by the specification. Reply 13. The same is true of FlatWorld’s argument that “[n]o one would think that a system that provides for only [three operations] is not a system for manipulating images, but that a system that provides for [four operations] is a system for manipulating images,” Reply 13—the issue is not simply what any person would “think,” but what the patent discloses.

FlatWorld’s assertion that Claim 1 only recites two of the operations while Claim 7 only recites three, and thus “manipulating” cannot encompass the four operations identified in Apple’s construction is unpersuasive. The inventor is not required to reiterate the full scope of every word each time a word is used in separate claims. More importantly, FlatWorld attempts to import limitations from one clause in a claim into the remainder of the claim without justification, as it does with moving (“dragging”) and removing in the third clause of Claim 1 to modify “manipulating” in the first clause and “manipulated” in the second clause. Here, the specification strongly supports Apple’s understanding of the claim language.

**VI. Term 7: “when the point being touched is being continually moved”**

**Term 8: “responding to a continuing touch that moves the image”**

“When the point being touched is being continually moved” is found in Claims 7, 8, and 19.

FlatWorld's Construction	Apple's Construction
Moving the touched point within a selected image causes the image to move with the touched point, thus permitting the image to be dragged.	When the point being touched is moving without interruption.

“Responding to a continuing touch that moves the image” is found in Claims 15 and 20.

FlatWorld's Construction	Apple's Construction
A touch that permits the image to be dragged.	A touch [that moves the image] that remains in existence without interruption.

The Court adopts Apple's constructions. This is a situation in which “the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such [a] case[ would] involve[] little more than the application of the widely accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1314. The Court finds that a person of ordinary skill in the art would understand that “being continually moved” is the same as “moving without interruption” and “continuing touch” is the same as “a touch that remains in existence without interruption.” The plain meaning of “continue” is synonymous with “without interruption,” and there is nothing in the intrinsic evidence to suggest otherwise.

FlatWorld's constructions must be rejected because there is nothing in either of its constructions that relates to the plain meaning of the words “continually” or “continuing,” nor has FlatWorld shown that a person of ordinary skill in the art would have a different understanding. As the Federal Circuit has said, claim terms must be understood according to their “ordinary and customary meaning” unless the patentee acts as his own lexicographer or makes a disavowal during prosecution. *Thorner*, 669 F.3d at 1365. Neither happened here. The mere fact that an image might “move with” a touched point or “be dragged” does not suggest any relationship with the ordinary and customary meaning of “continue,” and FlatWorld provides no evidence that the inventor intended “continually” or “continuing” to be understood that way.

FlatWorld argues that the specification “discloses two ways to move an images on the screen”—dragging and a double touch. Br. 23. “The term ‘continuing’ is used in the claims to distinguish between these two” ways, and “FlatWorld's proposed construction reflects this

rationale.” Br. 23. However, FlatWorld provides no support for its argument that the term “continuing” was intended to do what FlatWorld claims. Elsewhere in the patent, the inventor was able to make the distinction between the two ways to move an image, and FlatWorld provides no reason why the inventor did not do so here. The Court will not presume to connect concepts that the inventor did not connect himself.

FlatWorld argues that Apple’s construction “makes no sense” because “[a]ll touches on the invention’s touch screen must eventually be interrupted, in the sense that none are perpetual.” Br. 23. FlatWorld points to the preferred embodiment’s source code as an example, which recites a repeated looping of a touch location’s logging until “the mouse is up,” i.e., the touch has ended, only after which the system “runs through a series of algorithms to identify whether a drag or a throw or some other gesture is intended.” Br. 23-24. Apple’s construction, it argues, would exclude the preferred embodiment “because the touch that is followed by gesture-recognition algorithms does not move or remain in existence ‘without interruption’” and must end before the algorithms are run. Br. 24. Apple’s construction “require[s] that determining whether the image will be removed from the screen must take place at the time that the touch is ‘continuing.’” Reply 3.

FlatWorld’s argument is ultimately unpersuasive. The relevant claims appear to require the touch to be continuing when throwing or removing occurs even though the preferred embodiment appears to require the touch to end before running the algorithm to determine whether throwing has occurred. *Compare* Claims 7 and 15, *with* ‘318 Patent 11:64-66 *and* Figure 13. While there may be some merit to FlatWorld’s argument that Apple’s construction, when read into the relevant claims, may exclude the preferred embodiment<sup>6</sup>—an issue the Court does not decide—the Court cannot ignore the plain language of the claims. As the Federal Circuit has stated, “we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.”

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<sup>6</sup> Even Apple appears to allow the possibility that FlatWorld’s argument may be valid. Tr. 61-62. However, Apple also points out that Claim 1 does not have a “continually” or “continuing” limitation. Tr. 62:2-4.

*Phillips*, 415 F.3d at 1323. The Court must be guided primarily by what the claims disclose and not a particularized set of source code in the one embodiment found in the patent. Because FlatWorld’s arguments in favor of its construction rely almost exclusively on the preferred embodiment, its construction cannot be credited in the face of the plain and ordinary meaning of the claim language.

## **VII. Term 9: “when”<sup>7</sup>**

“When” is found in Claims 1, 2, 5, 6, 7, 8, 15, 18, 19, and 20.

FlatWorld’s Construction	Apple’s Construction
In view of the fact that.	When the image is dragged faster than the threshold velocity, the semantics of the drag operation change: instead of simply moving faster, the image vanishes.  Alternatively: At the time that. <sup>8</sup>

Reading the disputed term “when” in the context of the claim language, the Court is persuaded that Apple’s alternative construction that “when” means “at the time that” most accurately captures what a person of ordinary skill in the art would understand the term to mean. Claim 1 discloses that “when the image is being dragged in response to the location inputs and the system detects that the velocity with which the image is being dragged exceeds a threshold velocity, the system responds by removing the image.” Claim 7 discloses that “when the point being touched is being continually moved and the system detects that the velocity at which the point is moving exceeds a predetermined threshold velocity, the image being continually moved is removed.” Claim 15 discloses that “when the computer detects that the velocity of the touch exceeds a predetermined threshold, the computer responds by removing the image from the screen.” FlatWorld acknowledges that the patent does not define the term, Br. 12; Tr. 65:2-3, and Apple provides no evidence to the contrary.

The term “when” as used in the relevant claims contains a temporal dimension. This is

<sup>7</sup> The parties have agreed that the disputed term “when” does not comprise the entirety of their dispute; rather, the parties dispute the meaning of the relevant claims as a whole, but focus on “when” for purposes of claim construction. Dkt. No. 142-1 at 40 n.6; Tr. 69:6-11.

<sup>8</sup> Apple proposed this alternative construction at the claim construction hearing. Tr. 72:10.

1 another situation where “the ordinary meaning of claim language . . . may be readily apparent even  
2 to lay judges, and claim construction . . . involves little more than the application of the widely  
3 accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1314. The claims speak  
4 in the present tense, suggesting an ongoing event. The patentee could have said “has been  
5 dragged” or “when the computer has detected” and used other similar language, but did not.

6 The specification also uses “when” in a temporal sense. For example, the Abstract states,  
7 “When a proximity sensor senses someone in the neighborhood of the system, it displays images  
8 on the display.” ‘318 Patent Abstract. This suggests a temporal dimension—the invention would  
9 not make sense if the images were displayed after a period of time. More revealingly, the  
10 specification also states, “*When* the child taps the object twice and doesn’t raise its finger after the  
11 second tap, the object is surrounded by a red outline. *If* the child *then* moves its finger up or down  
12 on the screen, the object changes size in the vertical direction . . . .” ‘318 Patent 7:2-5 (emphases  
13 added). The excerpt shows that the patentee knew how to distinguish “when” from conditional  
14 terms like “if.” Read in context, the “when” in the excerpt appears to be temporal because the red  
15 outline appears if the child does not raise its finger. The language indicates that there is no  
16 possibility that the red outline does not appear. Similarly, the relevant claims disclose that a throw  
17 occurs “at the time that” the image or touch exceeds the threshold velocity, and there is no  
18 suggestion that other conditions must be met.

19 FlatWorld argues that “when” is used in the conditional sense. Br. 24. But FlatWorld does  
20 not explain how “the term is . . . used consistently with its conditional sense throughout the  
21 specification and prosecution history.” Reply 22. As mentioned above, the patentee knew how to  
22 use commoner words signifying a condition, such as “if,” if he wanted to do so—the patentee did  
23 so repeatedly throughout Claim 18.

24 FlatWorld also argues that the fact that the system must “detect” velocity while dragging  
25 occurs means that Apple’s construction is wrong. Tr. 66-67. However, as Apple correctly notes,  
26 there is no reason why detection cannot occur at the same time as dragging since the system is  
27 already detecting that the touched point or image is being dragged. Tr. 74:4-15. The patentee’s  
28 decision to use the term “when” should be decisive here given that there is no indication that the

patentee intended for any other definition for the term other than its plain and ordinary meaning.

FlatWorld points out that Apple's own Dictionary defines "when" to mean "in view of the fact that." Br. 24 (quoting Meyer Br. Decl. Ex. 9). Apple, in turn, argues that FlatWorld's own citations to dictionaries contain definitions which support the proposition that "when" is not merely conditional. Response 22. The Court need not address these arguments since there is enough intrinsic evidence to construe the term.<sup>9</sup>

### CONCLUSION

For the reasons above, the Court construes the disputed terms as follows:

- "Image" is "a displayed or drawn representation that is manipulated in response to touch or location inputs."
- "Velocity" is "velocity or, in the alternative, speed."
- "Threshold velocity" is "a level or value of velocity sufficient to cause the dragged/moved image to be removed from the display."
- "Representative thereof" and "representative of the removed image" are "a depiction of at least a portion of the removed image."
- "Image is being dragged" and "image was dragged" are "the touched or selected point within the selected image is or was moved in response to location inputs, causing the image to move with the point."
- "Manipulating" is "a set of operations comprising at least selecting, moving, removing, and modifying."
- "Being continually moved" is "when the point being touched is moving without interruption."
- "Continuing touch" is "a touch that moves the image that remains in existence without interruption."
- "When" is "at the time that."

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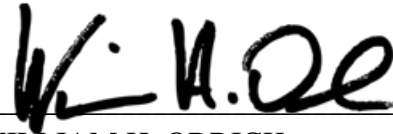
<sup>9</sup> FlatWorld also argues that Apple's constructions would exclude the preferred embodiment and its source code. For the reasons discussed elsewhere in this Order, the Court must look first to the claim language and cannot construe terms solely to take account of a preferred embodiment.

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The Court will hold a status conference on Tuesday, February 4, 2014, at 2 p.m., in Courtroom 2, 17th Floor, 450 Golden Gate Avenue, San Francisco, California, at which the parties should be prepared to discuss case scheduling and any other matters that may require the Court's attention.

**IT IS SO ORDERED.**

Dated: January 3, 2014

A handwritten signature in black ink, appearing to read "W. H. Orrick", written over a horizontal line.

WILLIAM H. ORRICK  
United States District Judge